

In the Claims:

Please amend the claims as follows:

1-4 (cancelled)

5. (new) A method for voltage stabilization of an electrical power network system comprising a producing power network system side, a consuming power network side comprising a power load, a power transmission line with an impedance Z_{LN} , a transformer and an on-line tap changer added to the transformer, the method comprising :
measuring the impedance of the line in case of dynamic instabilities; and
controlling a transformer ratio n by changing a voltage reference V_{ref} of the on-line tap changer, wherein the voltage reference is changed according to a feed forward compensation from the impedance of the line.

6. (new) The method according to claim 5, wherein the feed forward compensation drives the power network system to a stable equilibrium point in a stable region, and wherein the stable region lies below a loci for maximum power transfer $n^2Y_{LD}Z_{LN}=1$, where Y_{LD} is power load admittance, Z_{LN} is transmission line impedance and n is the transformer ratio.

7. (new) The method according to claim 5, wherein the feed forward compensation is provided by a first order filter $H_{ff}(s)=sT_d/(sT + 1)$, where T and T_d are tuning parameters.

8. (new) The method according to claim 5, wherein a feedback controller is provided according to an equation $V_{fb} = \max (0, a(n^2 Y_{LD} - 1/Z_{LN}))$, where n is the transformer ratio, Y_{LD} is power load admittance, Z_{LN} is transmission line impedance and a is a tuning parameter that is influencing a region of attraction of an equilibrium point.